The Next Generation



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You have been at sea longer than you care to remember, and you are tired but still have one aircraft left in the pattern. As it catches the 3-wire, you think about the long night of maintenance ahead. The aircraft clears the wires and already has troubleshot itself, told maintenance control what is wrong, initiated the discrepancies, and turned your pubs to the procedures to fix the reported gripes. Does this sound like a dream come true or a far-fetched idea? Recent changes in NALCOMIS and the advent of "smart" aircraft makes this futuristic view a little closer to reality.

The Naval Aviation Logistics Command Maintenance Information System (NALCOMIS) has been around, in one form or another, for nearly 20 years. More than 500 navy and Marine aviation activities use NALCOMIS each day. The rapid enhancements in computer hardware and software, in addition to



more "smart" aircraft entering the fleet, drove this primary maintenance-management tool to advance with the times. This old, tried-and-true system has been optimized to give Sailors and up-line commands a new system that is faster, more reliable, easier to use, and incredibly robust. During the transition, NALCOMIS IMA and OMA take on optimized partners, nicknamed OIMA and OOMA.

OOMA uses enhanced technology togive better tools to MMCOs and maintenance chiefs who are managing the configuration and maintenance of aircraft and equipment. It also accurately reflects the status and configurations of ALSS, SE, MME, and uninstalled components, providing near real-time data to upper-echelon readiness managers, logisticians and engineers.

One goal of this automated system is to create a paperless maintenance environment, which is easier said than done. OOMA squadrons currently are required to dual-document certain NAMP-compliance issues. Squadrons have reported other concerns about the upgrade: Readiness (FMC and MC) numbers have dropped, documented maintenance man-hours are down, cannibalization rates have increased, and old "shortcuts" no longer are available. These issues easily are explained. The auto Sub-systems Capability Impact Reproting capability of OOMA automatically accounts for readiness degraders, eliminating the opportunity to manipulate NMC or PMC numbers. Supervisors used to be able to list multiple workers on multiple MAFs at the same time. OOMA will allow multiple workers to be in work at the same time, but each worker must individually be put in work, and they can work on only one job at a time—just like reality. The system's enforcement of accurate cannibalization reporting has resulted in higher cannibalization rates. This sacrifice is necessary so OOMA accurately can manage configuration.

Enhancements have been made to the legacy (OMA) system, and the optimized system is operational in most VAW, VS, HS, HCS, and HSL fleetreplacement squadrons. It also is available to a handful of NavAir, NavRes, and Marine units. Several new features make this system easier and better:

- automated logbooks (including ALSS records, ADBs and high-time or forced-removal items)
- automated SCIR (Mission Essential Sub-systems Matrix, software business rules, and WUC-driven



repairable-component tracking)

- enhanced technical-directive tracking and management
- aircraft and aircraft-component configuration management (serial-number and parts-life tracking not just logbook items)
- visual electronic displays (VEDs: a new-age VIDS board)
 - "smart" aircraft interfaces—coming soon
 - ad-hoc queries
 - no more data runs to the local DSF
 - no more DAR, MDR and SCIR reports

A few basic but most powerful enhancements are found in the operating system. Unlike the legacy system, which used UNIX as its operating system and interface, OOMA uses the now-familiar Windows graphical-user interface. This one change allows the point-and-click and drag-and-drop features that are popular with new programs, and the change also gives the NALCOMIS work station access to Microsoft Office Suite and to the Internet.

Training on the optimized-NALCOMIS system is essential. The combined TyCom and SpaWar implementation-and-training teams train five specific groups of people:

- System administrators (AZs SA-DBA) must attend NALCOMIS "C" school or FASO SA course before implementation. During the install, the teams give training for logs and records, detachment processing, disaster recovery, flight documentation, and ad-hoc query. They also will receive in-depth training on configuration management within OOMA—the centerpiece of the OOMA environment.
- Parachute riggers are trained in the ALSS configuration-management module, which includes building, receiving and transferring electronic ALSS records.
- Maintenance managers are trained on the use of OOMA's VEDs and reports, which are used to manage and control the maintenance effort.

Flight, Flight-Related, and Ground Mishaps Class A Mishaps 09/04/2<u>0</u>02 to 12/12/2002

DateAcftCommandFatalities09/06/2002SH-60BHSL-431During a media flight, helo struck a vessel and crashed at sea.

09/10/2002 S-3B VS-22 3 Aircraft crashed at sea.

10/03/2002 F-14A VF-101 0
Aircraft crashed at sea, aircrew ejected.

10/18/2002 FA-18F VFA-41 4
Two aircraft had a midair collision, both destroyed.

10/23/2002 T-34C COMTRAWING-4 0 10/23/2002 T-44

10/23/2002 T-44A Multiple aircraft damaged during severe thunderstorm.

10/31/2002 FA-18D VFA-125 0
After a ramp strike, the aircraft's landing gear collapsed on arrested landing ashore.

11/03/2002 FA-18C VFA-34 1
Hornet failed to return from a night, at-sea bombing sortie.

11/14/2002 FA-18D VMFAT-101 O
Pilot ejected from aircraft during BFM flight.

11/20/2002 FA-18D VFA-125 0 Aircraft fire during a low-power turn on flight line.

Class B Mishaps 09/04/2002 to 12/12/2002

DateAcftCommand09/10/2002CH-53EHMM-166After emergency shutdown, helo had a fire near main rotor pylon.

09/16/2002 F-14 VF-32

09/16/2002 KC-135

Aircraft engine FODed during inflight refueling with tanker.

09/23/2002 T-45A COMTRAWING-2 Aircraft collided over runway, but landed safely.

10/01/2002 T-45C COMTRAWING-1 Aircraft skidded off runway during landing rollout.

10/07/2002 T-39N COMTRAWING-6 Ingested bird in left engine during low-level training mission.

10/14/2002 P-3C VP-69

No. 2 engine damaged in flight.

10/28/2002 F-18C VMFA-323 Four laser-guided training rounds struck electronic combat simulator, damaging van & truck.

11/02/2002 F-18A VFA-97 CATM-88 departed aircraft during carrier arrestment.

11/06/2002 F-14D VF-213

Non-aircrew passenger inadvertently ejected from rear cockpit during a day AIC flight.

11/16/2002 F-18A VMFA-115 Aircraft departed side of runway during landing rollout.